

FIG.1

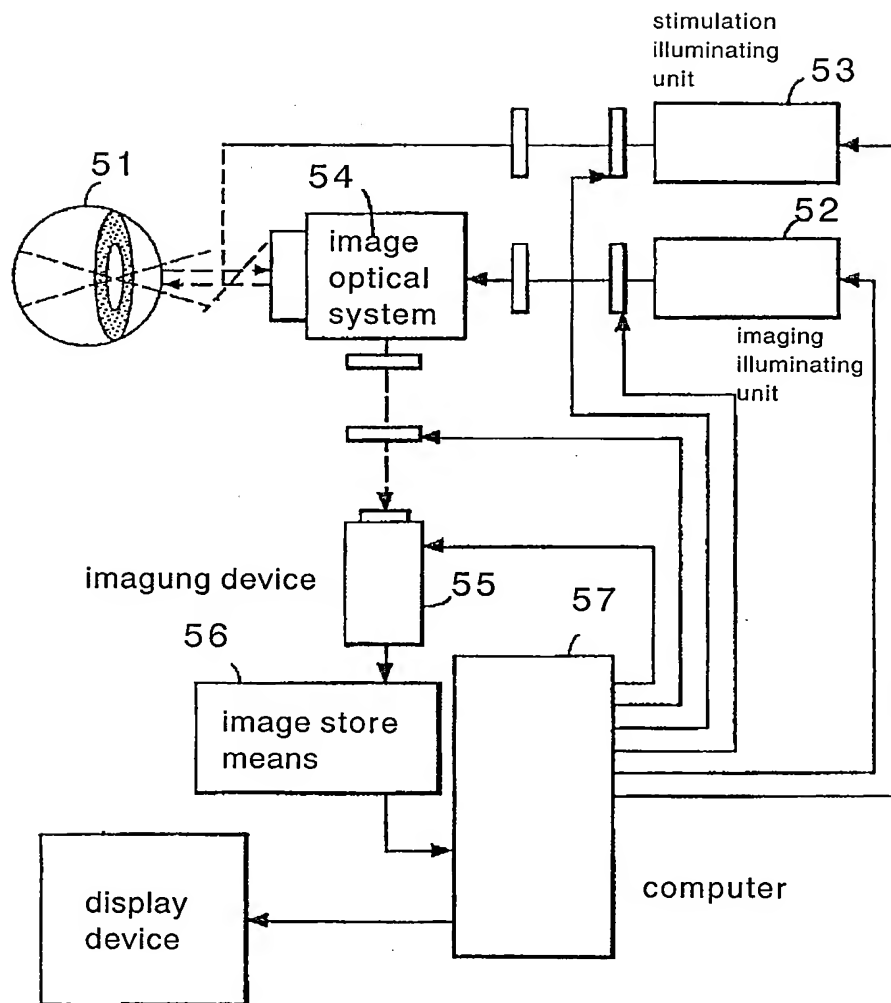


FIG.2

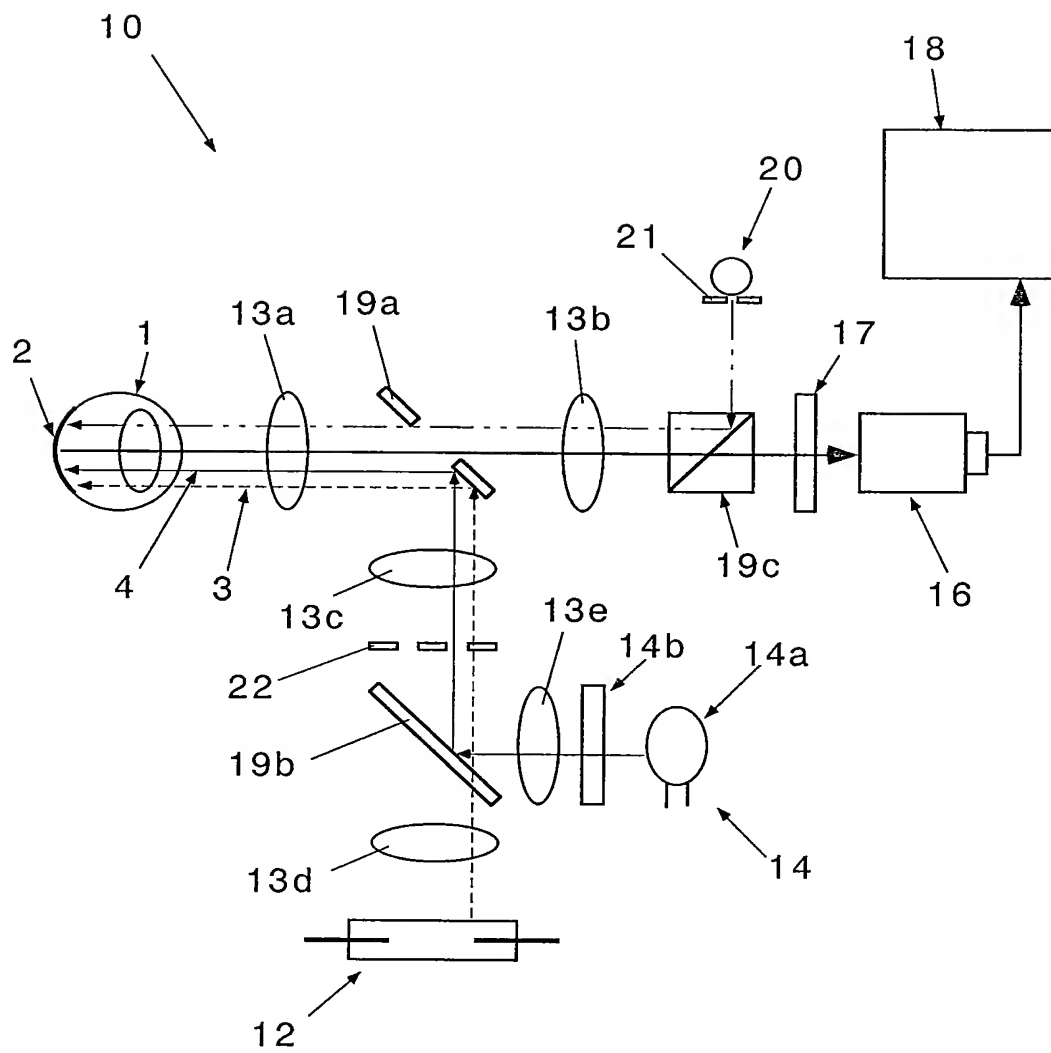


FIG.3

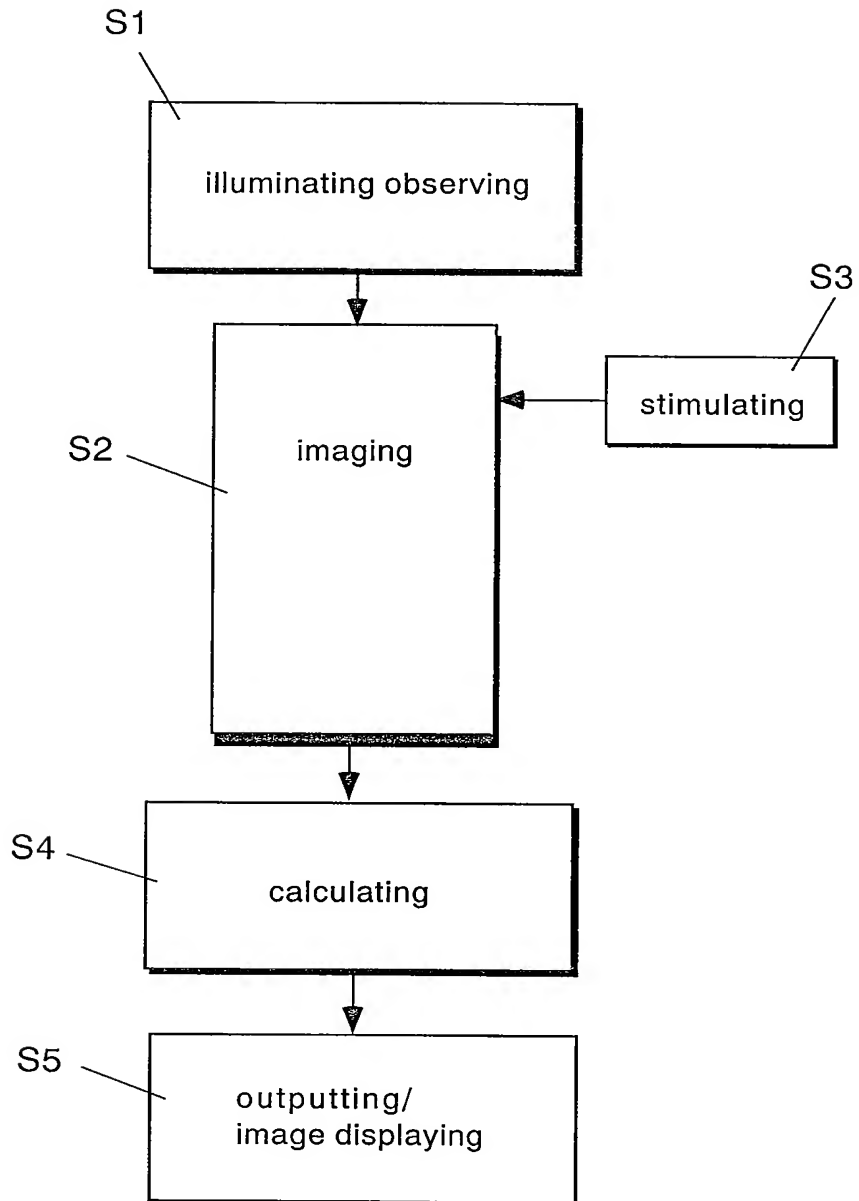


FIG.4A

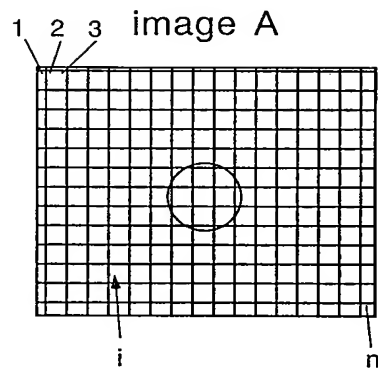


FIG.4B

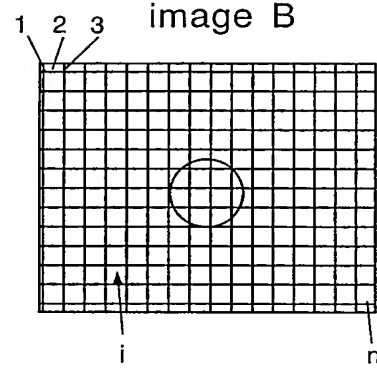


FIG.4C

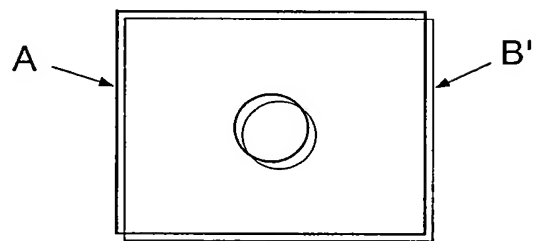


FIG.5A

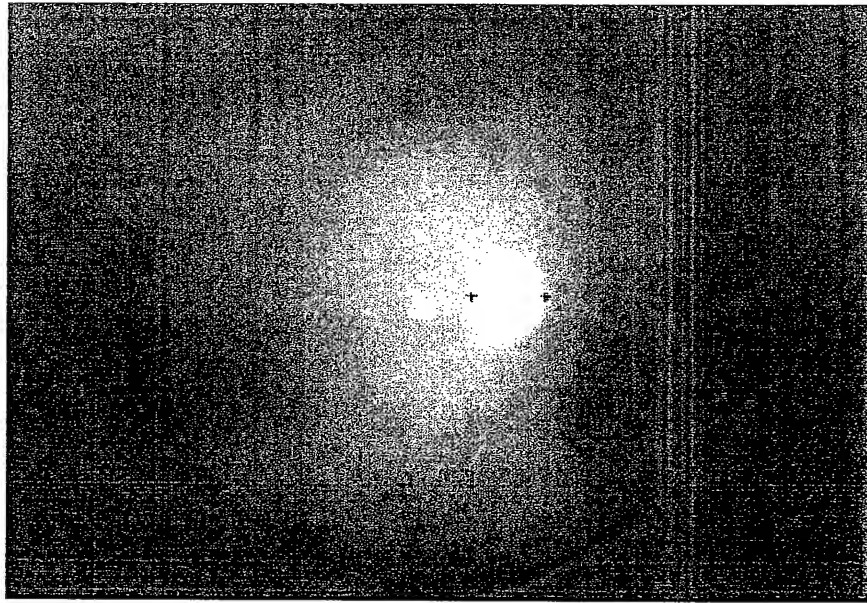
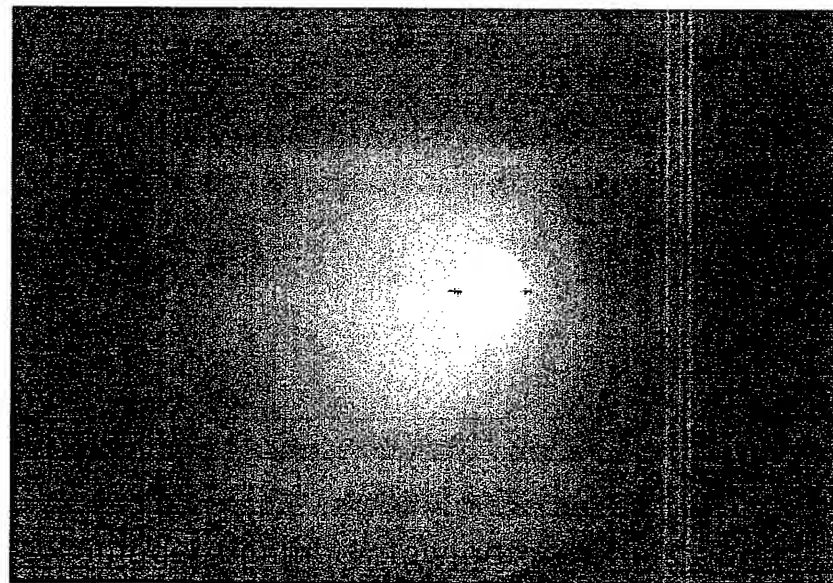


image A immediately before stimulation

FIG.5B



1.0mm

image B after stimulation, the neuron cells are active

FIG.6A

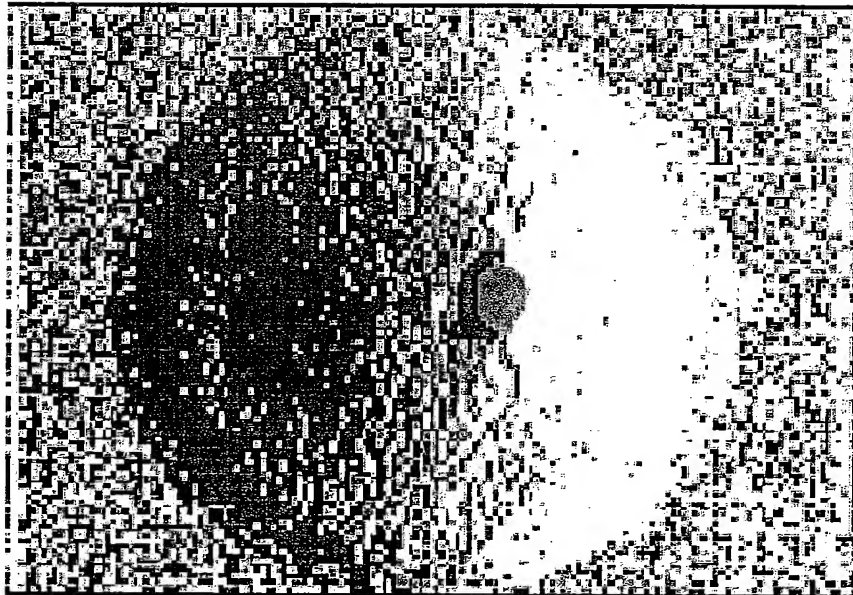


FIG.6B

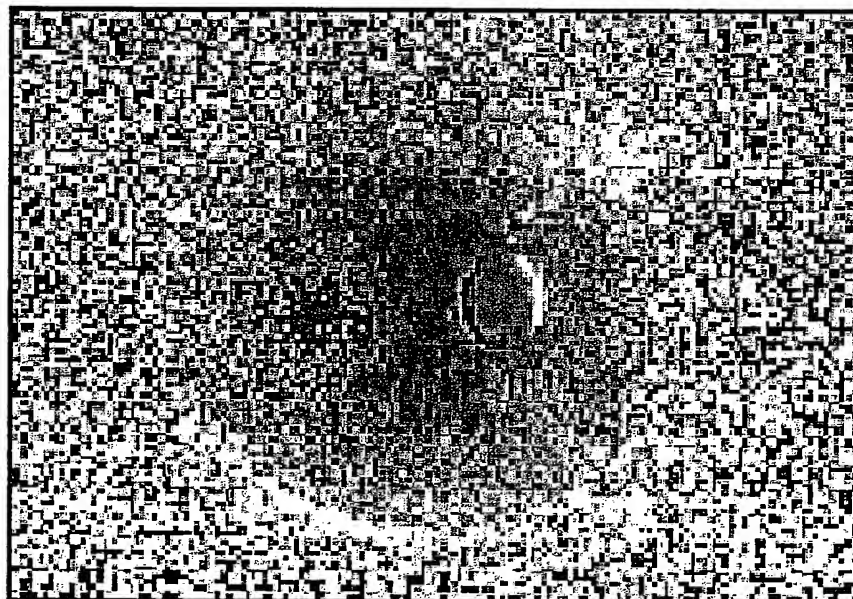
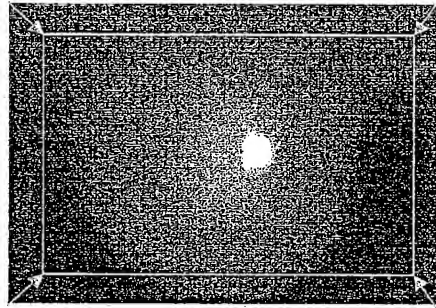
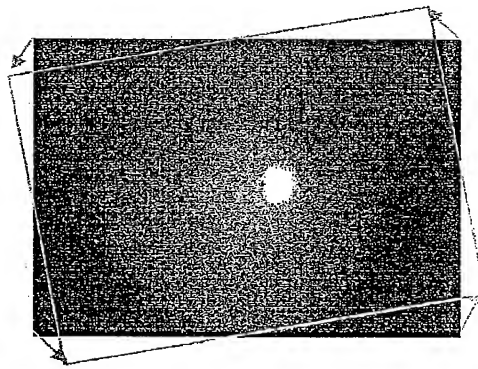


FIG.7A



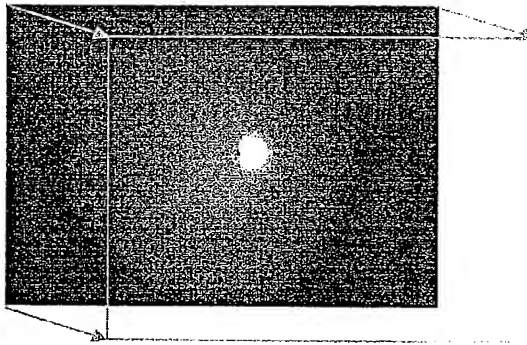
enlargement and reduction

FIG.7B



rotation

FIG.7C



translation

FIG.8A

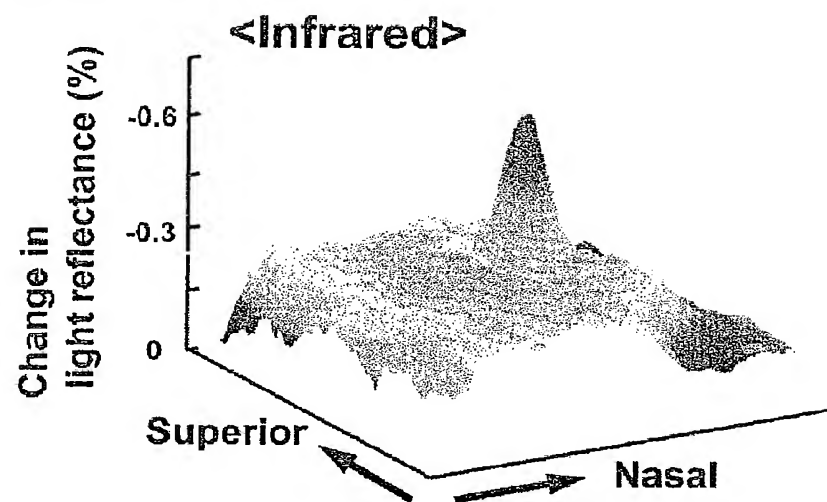


FIG.8B

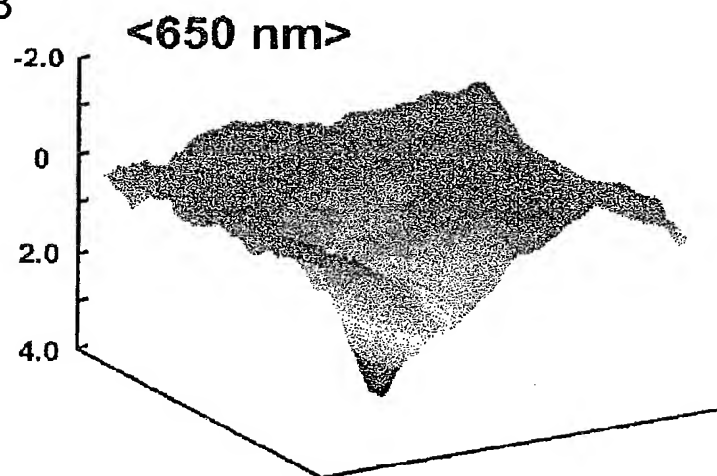


FIG.8C

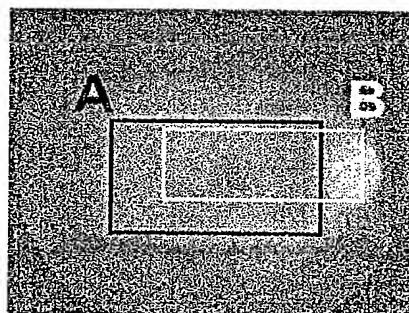


FIG.9A

fundus photograph of retina
(center is macular area)

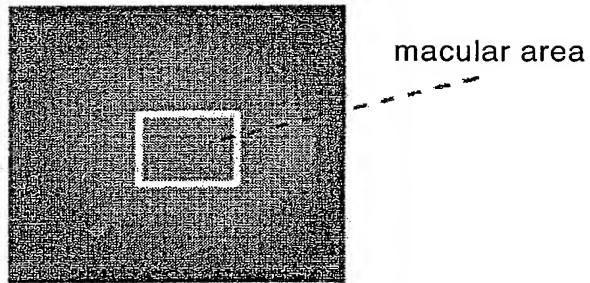


FIG.9B

distribution of cone photoreceptor of retina
(Osterberg, 1935)

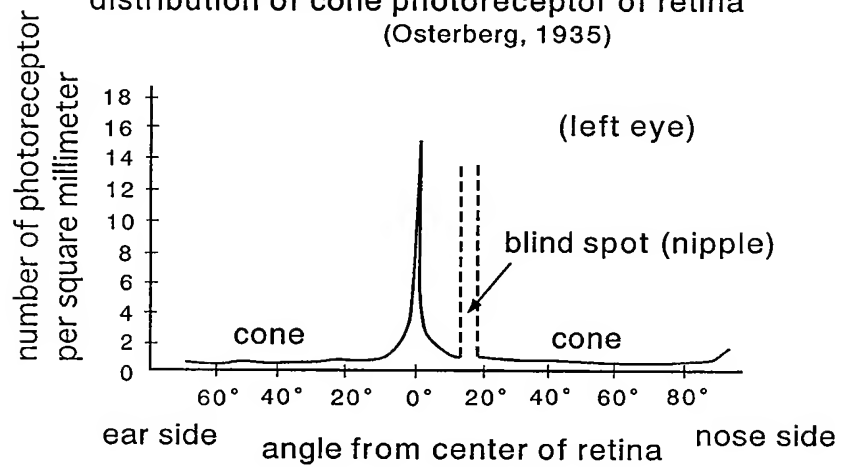


FIG.9C
functional topography of macular area
achieved by optical measurement

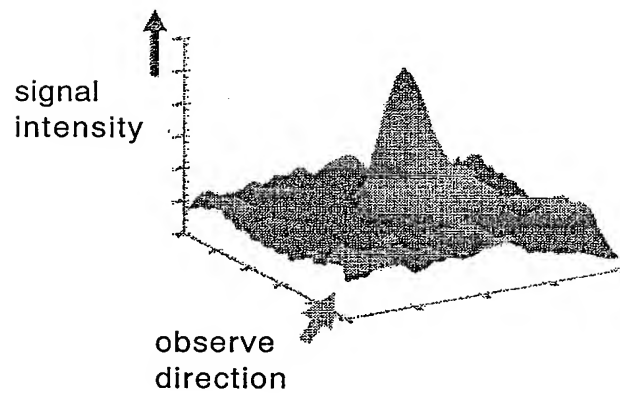


FIG.9D
cross section of FIG.9C

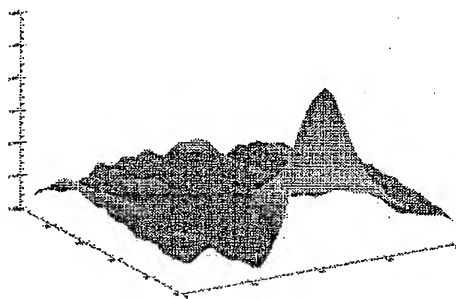
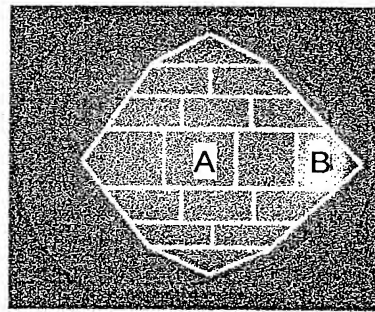


FIG.10A recorded area on retina



recorded area
on retina (white line)

A: macular area
B: optic disk

FIG.10B distribution of neural activity by electroretinogram

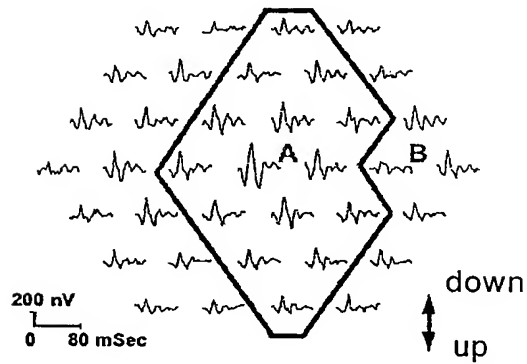
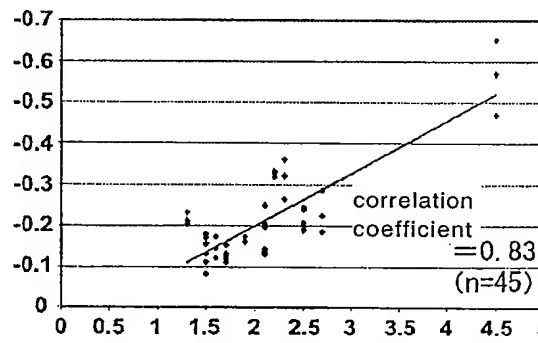


FIG.10C

correlation between intrinsic signal and
signal intensity measured by electroretinogram

intrinsic signal intensity
(chang of refrection rate:%)



local activity intensity of neurons
by electroretinogram